

Amendments to the Claims:

This listing of claims shall replace all previous versions and listings of the claims in the application.

1.–130. (Canceled)

131. (Currently amended) A composition comprising:

a plurality of different amplification products which have been amplified from a plurality of different ligation products querying a plurality of different loci, wherein each different amplification product comprises (a) a first primer specific portion, (b) a second primer specific portion, and (c) an addressable support-specific portion located between the first primer specific portion and the second primer specific portion, wherein the first primer specific portion is the same for each different amplification product, and the addressable support-specific portion is different for each different amplification product, the addressable support-specific portion is not substantially complementary with any of the different loci and is not substantially complementary with the complement of any of the different loci, and the addressable support-specific portion is 15-35 nucleotides in length;

at least two different sequence-specific mobility-modifiers, wherein each different mobility-modifier is capable of sequence specific binding to a different addressable support-specific portion and comprises (a) a tag complement for specifically binding the addressable support-specific portion of one of the plurality of different amplification products, and (b) a hydrophilic non-nucleic acid polymer tail which

imparts to each mobility modifier a mobility that is distinctive relative to the mobilities of one or more of the at least two different mobility-modifiers in a mobility-dependant analysis technique.

132. (Previously presented) The composition of claim 131, wherein all of the addressable support-specific portions are substantially the same length.

133. (Previously presented) The composition of claim 131, wherein the at least one sequence-specific mobility modifier comprises a label.

134. (Previously presented) The composition of claim 131, wherein the second primer specific portion is the same for each different amplification product.

135. (Previously presented) The composition of claim 131, wherein the plurality of amplification products comprises at least three different amplification products; and wherein at least two of the at least three different amplification products have been amplified from the same locus.

136. (Currently amended) A composition comprising:

a plurality of different amplification products which have been amplified from a plurality of different ligation products querying a plurality of different loci, wherein each different amplification product comprises (a) a first primer specific portion, (b) a second primer specific portion, and (c) an addressable support-specific portion

located between the first primer specific portion and the second primer specific portion, wherein the addressable support-specific portion is not substantially complementary with any of the different loci and is not substantially complementary with the complement of any of the different loci, wherein the addressable support-specific portion is 15-35 nucleotides in length, wherein the first primer specific portion is the same for each different amplification product and the addressable support-specific is different for each different amplification product; where at least two different amplification products of the plurality of different amplification products were amplified from ligation products derived from different target nucleic acid sequences derived from the same individual genome;

at least two different sequence-specific mobility-modifiers, wherein each different mobility-modifier is capable of sequence specific binding to a different addressable support-specific portion and comprises (a) a tag complement for specifically binding the addressable support-specific portion of one of the plurality of different amplification products, and (b) a hydrophilic non-nucleic acid polymer tail which imparts to each mobility modifier a mobility that is distinctive relative to the mobilities of one or more of the at least two different mobility-modifiers in a mobility dependant analysis technique;

wherein the tag complements of at least two different sequence-specific mobility modifiers of the at least two different sequence-specific mobility-modifiers do not cross-hybridize to the same addressable support-specific portion.

137. (Previously presented) The composition of claim 136, wherein all of the addressable support-specific portions are substantially the same length.

138. (Previously presented) The composition of claim 136, wherein the at least one sequence-specific mobility modifier comprises a label.

139. (Previously presented) The composition of claim 136, wherein the second primer specific portion is the same for each different amplification product.

140. (Previously presented) The composition of claim 136, wherein each different sequence-specific mobility-modifier is sufficiently different from each other different sequence-specific mobility-modifier so that no two different sequence-specific mobility-modifiers bind to the same addressable support-specific portion

141. (Currently amended) A composition comprising:

a plurality of different amplification products which have been amplified from a plurality of different ligation products querying a plurality of different loci, wherein each different amplification product comprises (a) a first primer specific portion, (b) a second primer specific portion, (c) an addressable support-specific portion located between the first primer specific portion and the second primer specific portion, and (d) a target specific portion located between the addressable support-specific portion and either the first primer specific portion or the second primer specific portion; wherein the first primer specific portion is the same for each

different amplification product and the addressable support-specific portion is different for each different amplification product; and wherein the addressable-support specific portion does not comprise any portion of the target specific portion, wherein the addressable support-specific portion is not substantially complementary with any of the different loci and is not substantially complementary with the complement of any of the different loci, and wherein the addressable support-specific portion is 15-35 nucleotides in length;

at least two different sequence-specific mobility-modifiers, wherein each different mobility-modifier is capable of sequence specific binding to a different addressable support-specific portion and comprises (a) a tag complement for specifically binding the addressable support-specific portion of one of the plurality of different amplification products, and (b) a hydrophilic non-nucleic acid polymer tail which imparts to each mobility modifier a mobility that is distinctive relative to the mobilities of one or more of the at least two different mobility-modifiers in a mobility dependant analysis technique.

142. (Previously presented) The composition of claim 141, wherein all of the addressable support-specific portions are substantially the same length.

143. (Previously presented) The composition of claim 141, wherein the at least one sequence-specific mobility modifier comprises a label.

144. (Previously presented) The composition of claim 141, wherein the second primer specific portion is the same for each different amplification product.